#6

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Henrik Dewitzel et al.	Examiner:	
Serial No.:	09/828,708	Group Art Unit:	1651
Filed:	April 6, 2001	Docket:	1361.005US1
Title:	AUTOANTIBODIES TO GLUCOSE-6-PHOSPHATE ISOMERASE AND THEIR PARTICIPATION IN AUTOIMMUNE DISEASE		

SUPPLEMENTAL PRELIMINARY AMENDMENT

Commissioner for Patents
Washington, D.C. 20231

Sir:

In response to the "Notice to File Missing Parts of Nonprovisional Application" mailed June 20, 2001, please amend the above-identified patent application as follows.

This response is accompanied by a Petition, as well as the appropriate fee, to obtain a 1-month extension of the period for responding to the Notice, thereby moving the deadline for response from August 20, 2001 to September 20, 2001.

In the Drawings

NE

Please amend Figure 5B in accordance with the attached proposed drawing. Changes are indicated in red ink.

In the Specification

6A

Please enter the enclosed SEQUENCE LISTING into the specification.

6B

Please substitute the paragraph in the appendix entitled "Clean Version of the Paragraph Spanning Pages 21-22" for the paragraph spanning pages 21-22 of the specification. Specific amendments to this paragraph are detailed in the following marked-up paragraph:

A phagemid vector may be constructed to fuse the antibody fragment chain such as an Fab, Fab' or preferably an Fd chain with the C-terminal domain of cpIII (see Barbas et al., Proc. Natl. Acad. Sci. USA, 88, 7978 (1991)). A flexible five-amino acid tether (GGGGS) (SEQ ID NO:123), which lacks an ordered secondary structure, may be juxtaposed between the expressed fragment chain and cpIII domains to minimize interaction. The phagemid vector may also be constructed to include a nucleotide coding for the light chain of a Fab fragment. The cpIII/Fd fragment fusion protein and the light chain protein may be placed under control of separate lac promoter/operator sequences and directed to the periplasmic space by pelB leader sequences for functional assembly on the membrane. Inclusion of the phage F1 intergenic region in the vector allows for packaging of single-stranded phagemid with the aid of helper phage. The use of helper phage superinfection may result in expression of two forms of cpIII. Consequently, normal phage morphogenesis may be perturbed by competition between the cpIII/Fd fragment fusion protein and the native cpIII of the helper phage for incorporation into the virion. The resulting packaged phagemid may carry native cpIII, which is necessary for infection, and the fusion protein including the Fab fragment, which may be displayed for interaction with an antigen and used for selection. Fusion at the C-terminal domain of cpIII is